

questionnaire if necessary, and in 12% of cases someone completed the questionnaire on the recipient's behalf. The response rate thus achieved (78% overall and 85% when those found to be ineligible were excluded) was better than that reported for general population samples.^{1,3} The age and sex distributions of the respondents, when compared with census data, showed no evidence of decreased response with increasing age—indeed, the reverse was the case.

The reliability of the responses was as good as that reported previously,^{1,3} as indicated by the values for Cronbach's α obtained for the different scales in the SF 36. In addition to the SF 36's core questions the postal questionnaire contained some questions on help received with activities of daily living and on visits from the general practitioner and district or practice nurses in the past three months. The level of support indicated by responses to these questions showed a strong relation with severity based on scores on the scale of physical functioning (table), suggesting that this particular scale is valid. An interview survey of a subsample of the respondents to the postal survey is nearing completion and should provide much more information on the validity of the instrument for this age group.

Amount of help received with activities of daily living related to severity of physical problems (according to score on SF 36's scale of physical functioning). Figures are numbers (percentages) of respondents

Help received	Problems with physical function				Not significant
	Very severe	Quite severe	Moderate	Minor	
None	18 (6)	112 (29)	328 (54)	627 (75)	500 (89)
Occasional	63 (20)	66 (17)	107 (18)	103 (12)	35 (6)
Regular	239 (75)	204 (53)	171 (28)	111 (13)	27 (5)
Total	320	382	606	841	563

There are occasions when a well tested instrument of proved reliability and validity across a wide age range provides a core of basic questions. The SF 36 seems to be a good candidate in this respect, although more work, such as the interview survey we are conducting, is needed to prove its validity. Its link to a range of questionnaires designed to measure outcomes for a variety of specific conditions—for example, stroke—is an added advantage.

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SF 36 may reinforce ageism

EDITOR,—I wish to add a caution regarding use of the short form 36 (SF 36) health survey questionnaire.¹ This "optimum outcome measure" has the potential to bias allocation of resources away from elderly people.

At a given level of disability patients' satisfaction improves with increasing age and duration of disease.² Thus subjective components of the SF 36, such as its "general health perception" and "mental

health" indices, tend to underrate impairment in elderly or chronically sick people. Although it is recognised that elderly people play down their symptoms, this effect may be forgotten in a complex outcome statistic, which, as a result, emphasises the needs of other groups.

Use of normative data (which unfortunately do not yet include data on elderly people)¹ is imperative to ensure that comparisons of outcome are valid and that the SF 36 cannot be used to justify and reinforce ageism.

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Diagnosing meningococcal infection

Don't delay giving antibiotics

EDITOR,—I was intrigued by Marcel van Deuren and colleagues' study of aspiration or biopsy of skin lesions as a diagnostic procedure in acute meningococcal infection.¹ The data in their table I confirm the common clinical impression that not all cases of acute meningococcal infection will be confirmed bacteriologically on culture of blood or cerebrospinal fluid, and this cannot always be accounted for by prior antibiotic treatment.

It seems that patients with negative results of culture of blood and cerebrospinal fluid were included in the study if meningococci were discovered on examination of skin lesions and excluded otherwise. The study population was thus partly defined by the result of this technique, and this in turn will have spuriously increased the technique's apparent sensitivity. This distortion is liable to be stronger still in the subgroup in which Gram staining of cerebrospinal fluid initially gave an inconclusive result. While it is clearly difficult to calculate sensitivity when a true, independent denominator is not available, it might have been helpful if the authors had indicated how many patients had episodes of clinical meningococcal infection in which all available bacteriological techniques yielded negative results during the study.

The authors state that in meningococcal infection a prompt bacteriological diagnosis is one of the prerequisites for saving lives. I suggest that for patients with clinical sepsis and haemorrhagic lesions the main prerequisite is the prompt institution of vigorous parenteral antibiotic treatment with supportive measures, and this should not be deferred pending bacteriological confirmation.

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Authors' reply

EDITOR,—We agree with George Farmer that if meningococcal sepsis is suspected the main prerequisite for saving life is the prompt institution of antibiotics with supportive measures. Early confirmation of the diagnosis, however, helps doctors to estimate the prognosis, anticipate clinical deterioration, and start chemoprophylaxis

for the family. One of the important messages of our paper was that early treatment with antibiotics does not affect the bacteriological diagnosis when it is based on examination of skin lesions.

We compared the contributions of Gram stained specimens of cerebrospinal fluid and skin lesions to rapid confirmation of the diagnosis. The word "sensitivity" was used to indicate the proportion of patients with a positive test result in our study population—that is, in patients with proved meningococcal infection. We would be reluctant to classify patients with disease that responds to antibiotics but with negative bacteriological results as having meningococcal infections. Thus we did not study the value of the tests in these patients.

The comment that the study population was partly defined by the result of the tests and that it is difficult to calculate a sensitivity when there is no independent denominator is theoretically correct. In our opinion, however, in patients in whom meningococcal disease is suspected clinically the finding of Gram negative cocci in a skin lesion proves the diagnosis of meningococcal infection even when cultures of cerebrospinal fluid or blood remain negative. Moreover, in only two of the 51 patients was the diagnosis made exclusively on the basis that Gram staining of a skin lesion gave a positive result; in the subgroup of patients with shock and without meningitis (n=18) this occurred in only one patient. When this patient was excluded Gram staining of a skin lesion in this group still gave a positive result in 70%, whereas Gram staining of cerebrospinal fluid gave a positive result in only 23%.

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Medical angiologists

Britain needs them

EDITOR,—As members of the steering committee of the forum on angiology of the Royal Society of Medicine, we welcome C P Warlow's challenge to prove that medical angiologists are needed in the United Kingdom.¹ In fact, he highlights the case for medical angiologists in the prevention and treatment of venous thromboembolism and peripheral arterial disease. Venous thromboembolism is the commonest preventable cause of death in hospital, and because three quarters of fatal pulmonary emboli occur in medical wards it seems appropriate to designate a physician to coordinate and audit prevention and treatment,² which, as Warlow states, is almost entirely medical. Purchasers will not be happy if 1% of their referred patients die of pulmonary embolism through lack of organised prophylaxis,³ and hospital managers will face potential litigation costs.

Symptomatic peripheral arterial disease is present in almost 5% of the population of the United Kingdom aged 55-75, but these subjects make up only a small proportion of those with detectable atherosclerosis.³ Warlow appreciates the need for medical management of the one million people in the United Kingdom who have claudication: few will have surgery, but most require medical assessment and prophylaxis to reduce their major risk of heart disease and stroke. Several of us work happily with our vascular